The Nation's Report Card
Trial Urban District Assessment

Mathematics 2003

Boston School District
Grade 8
Public Schools

Snapshot Report

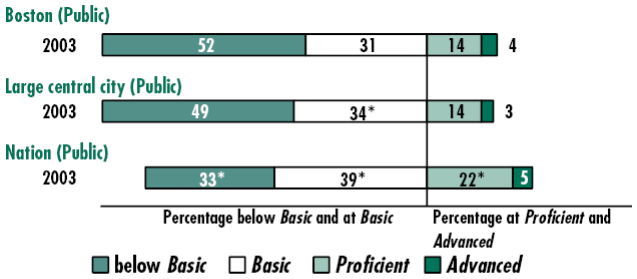
NCES 2004-454XB8

The National Assessment of Educational Progress (NAEP) assesses mathematics on a 0-500 point scale. In 2003, Boston School District was one of nine urban districts that voluntarily participated in the NAEP mathematics assessment on a trial basis.

Overall Mathematics Results for Boston

- In 2003, the average scale score for eighth-grade students in Boston was 262. This was lower[1] than that of the nation's public schools (276).
- Boston's average score (262) in 2003 was not significantly different from that of public schools in large central cities[2] (262), and lower than that of Massachusetts (287).
- The percentage of students in Boston who performed at or above the NAEP *Proficient* level was 17 percent in 2003. The percentage of students in Boston who performed at or above the *Basic* level was 48 percent.

Student Percentage at NAEP Achievement Levels



NOTE: The NAEP mathematics scale ranges from 0 to 500, with the achievement levels corresponding to the following points: Below *Basic,* 261 or lower; *Basic,* 262-298; *Proficient,* 299-332; *Advanced,* 333 or above.

Performance of NAEP Reporting Groups in Boston

Reporting groups	Percentage of students[3]	Average Score	Percentage of students at Below *Basic*	*Basic*	*Proficient*	*Advanced*
Male	48	260 ↓	52 ↑	31 ↓	13 ↓	4
Female	52	263 ↓	52 ↑	30 ↓	14 ↓	4
White	16 ↓	289	23	29 ↓	36	11
Black	46 ↑	251	64	31	5	#
Hispanic	28 ↑	252 ↓	62 ↑	32	6 ↓	#
Asian/Pacific Islander	9 ↑	300 ↑	13 ↓	30	39	18
American Indian/Alaska Native	# ↓	---	---	---	---	---
Free/reduced-price school lunch						
Eligible	71 ↑	256	57 ↑	31 ↓	10	2
Not eligible	10 ↓	282	32 ↑	34	23	11

Average Score Gaps Between Selected Groups

- In 2003, male students in Boston had an average score that was not found to be significantly different from that of female students. In the Nation, male students had an average score that was higher than that of female students.
- In 2003, White students had an average score that was higher than that of Black students (39 points). This performance gap was not significantly different from that of the Nation (35 points).
- In 2003, White students had an average score that was higher than that of Hispanic students (37 points). This performance gap was wider than that of the Nation (28 points).
- In 2003, students who were not eligible for free/reduced-price school lunch had an average score that was higher than that of students who were eligible (25 points). This performance gap was not significantly different from that of the Nation (28 points).

Mathematics Scale Scores at Selected Percentiles

	Scale Score Distribution		
	25th Percentile	50th Percentile	75th Percentile
Boston	236 ↓	260 ↓	287 ↓
Large central city (Public)	238 ↓	262 ↓	288 ↓
Nation (Public)	253	278	301

An examination of scores at different percentiles on the 0–500 NAEP mathematics scale at each grade indicates how well students at lower, middle, and higher levels of the distribution performed. For example, the data above show that 75 percent of students in public schools nationally scored below 301, and 75 percent of students in Boston scored below 287.

The estimate rounds to zero.
--- Reporting standards not met; sample size insufficient to permit a reliable estimate.
* Significantly different from Boston.
↑ Significantly higher than, ↓ lower than appropriate subgroup in the nation (public).

[1] Comparisons (higher/lower/not different) are based on statistical tests. The .05 level was used for testing statistical significance. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples and changes in sample sizes. NAEP sample sizes have increased in 2003 compared to previous years, resulting in smaller detectable differences than in previous assessments.
[2] "Large central city" includes nationally representative public schools located in large central cities within metropolitan statistical areas as defined by the federal Office of Management and Budget. It is not synonymous with "inner city."
[3] For comparison, minority students comprised 76 percent of students in large central city public schools and 38 percent in public schools nationally. Also, students eligible for free/reduced-price school lunch comprised 60 percent of students in large central city public schools and 36 percent in public schools nationally.
NOTE: Detail may not sum to totals because of rounding, and because the "Information not available" category for Free/reduced-price lunch is not displayed. Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 Trial Urban District Mathematics Assessment.